



How to Ground Guide

Purpose of this course

- To introduce the basics of assisting the driver of a vehicle safely navigate while in a controlled environment
- To ensure the safety of
 - Vehicles
 - Staff
 - Public
 - Buildings



Course Agenda

1. Ground Guide Overview
2. Ground Guide Safety Considerations
3. Ground Guide for Linear Movement
4. Ground Guide for Turning Movement
5. Some other useful signals





Ground Guide Overview



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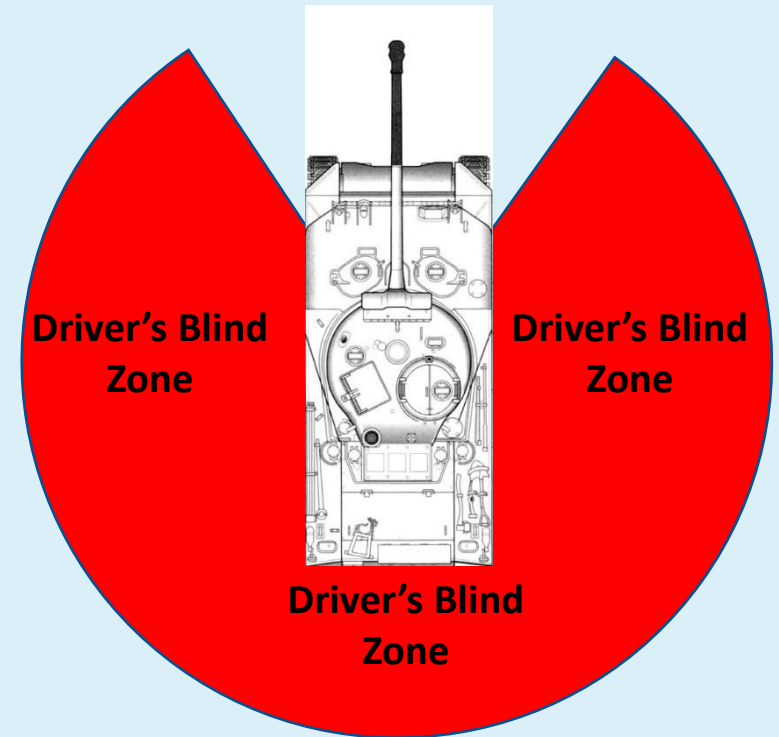
Ground Guides are the “eyes” of the driver



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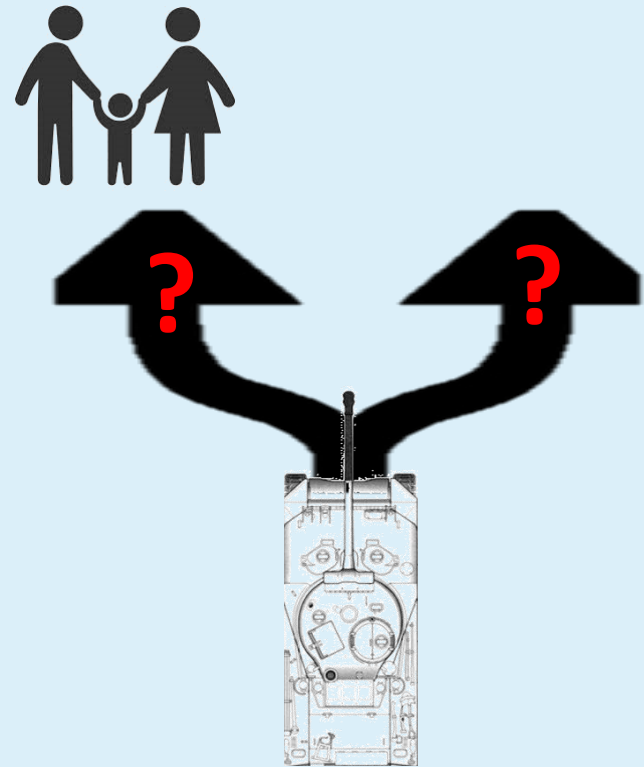
Why Ground Guide?

1. Many of our vehicles limit the view of the driver; especially to the sides and back



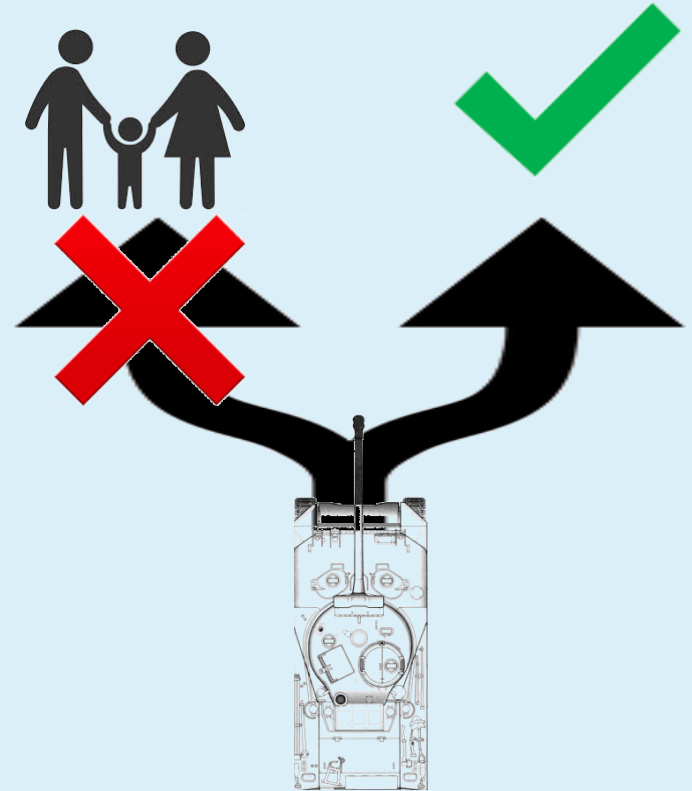
Why Ground Guide?

1. Many of our vehicles limit the view of the driver; especially to the sides and back
2. The vehicles move in a crowded environment of other vehicles, doors, volunteers, and public.



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Only A Zero Failure Rate is Acceptable



1. Our vehicles are priceless artefacts. Some cannot be replaced. We need to keep them safe.
2. Our staff, volunteers, and visitors expect a safe environment. Running them over is not an optimal public relations move.
3. Our insurance is predicated on proper procedures being carried out. If a vehicle is moving without a Ground Guide and there is an accident; insurance may not cover the cost (or the lawsuit).



Role of the Ground Guide

- Guide the driver of the vehicle to safely navigate the agreed route.
- Primary Ground Guide is at the front of the vehicle.
- Secondary Ground Guide (if used) at the rear of the vehicle
- Communicate with the driver using standard hand and arm signals
- Ensure the safety of all people and vehicles in the area



When to use a Ground Guide

2

- Within any building or in a marshalling area; **two ground guides** are required. One at the front (primary), one at the rear (secondary)
- Backing up a vehicle
- When needed for safety

1

Moving a vehicle outside without other vehicles moving: One Ground Guide, at the front

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In the tank arena, on a road move, or in convoy. No Ground Guide required.



Ground Guiding is not just a good idea.
Ground Guiding is not optional.



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Ground Guide Safety Considerations



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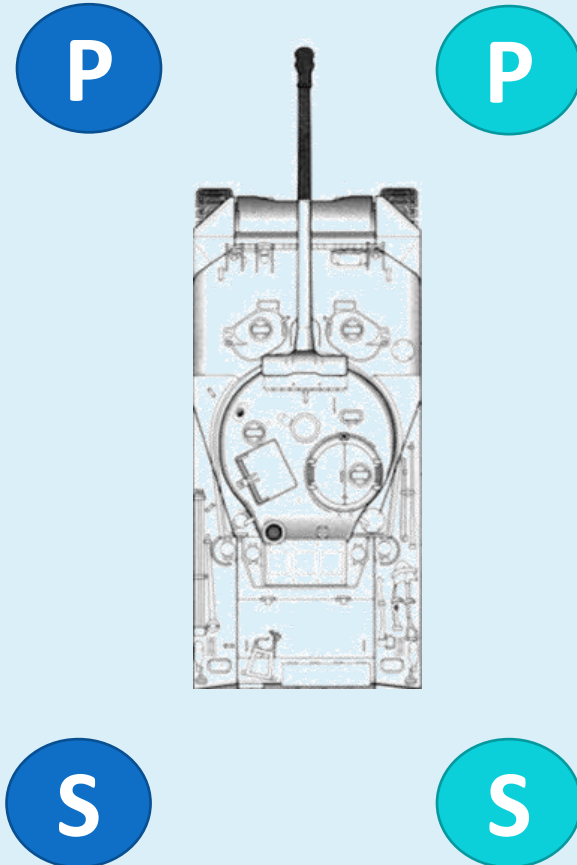
Most important point- Keep ***YOURSELF*** safe!

1. Wear a high visibility yellow or orange safety vest
2. Maintain “eye contact” with the driver
3. Do not run (so you do not trip!)
4. If you are uncomfortable or unsure what to do – STOP!
5. Talk to the driver *before* the move make sure that the guides and the driver know where the vehicle is going.



Where to stand.

- Primary Ground Guide will stand 10-15 feet to the front of the vehicle
 - Face the Driver
 - Not directly in front of the vehicle.
 - Left side unless concern is to the right
- Secondary Ground Guide 10 – 15 feet to the rear of the vehicle
 - Visible by the driver's mirrors
 - Same side as the Primary Ground Guide
 - MUST be visible to the primary Ground Guide
 - Face the Primary Ground Guide



Ground Guide Basics

- Always use standard Hand Signals (Voice can be misheard)
- When in doubt, STOP!
- When unsure, STOP!
- If not 100% safe, STOP!
- CTM Ground Guide procedures and hand signs are **similar but different** from military as they are focused on safety within a civilian museum.



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Who is in charge?

1. Driver follows Ground Guides instructions or STOPS.
2. If driver loses sight of the Ground Guide; Vehicle STOPS.
3. If either Ground Guide loses sight of the other, STOP
4. If three horns sound, everyone STOPS.
5. If anyone see danger or possible danger, Everyone STOPS!

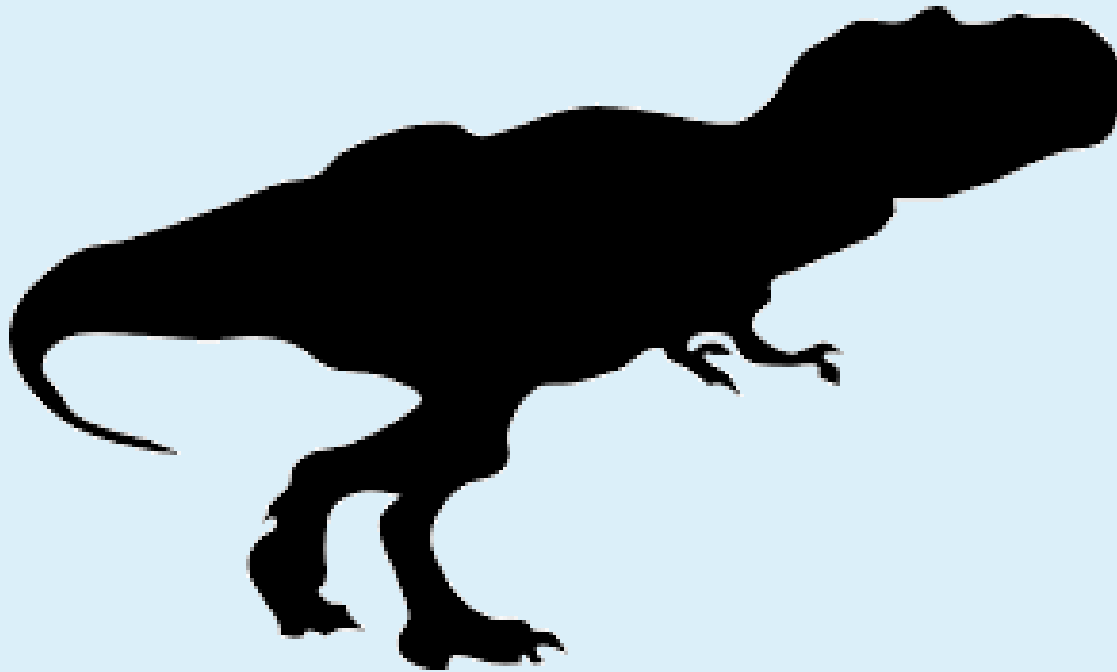


Ground Guiding



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T-Rex was a bad Ground Guide



Use large arm movements
over your head.

T-Rex had small arms and
could not raise them over
his head.

Don't be T-Rex
(T-Rex is extinct)



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The MOST IMPORTANT Signal

- Crossed arms over the head mean STOP!
- Think “Don’t hit me!”
- STOP can be signalled by a ground guide or an observer
- STOP is immediately repeated by EVERYONE around the vehicle move
- STOP can be used as “DONE WITH VEHICLE” when the vehicle is in its final location.





Before Movement

Start from a safe place



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Before MOVEMENT!

BEFORE any movement

- Confirm movement with driver
- Walk 360 degree around vehicle
- Note Height, Width, and Length Restrictions
- Note other vehicles, staff, volunteers, and public.
- Plan vehicle move
- Share plan with driver and other Ground Guides

Communication is Safety.



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Before Movement



START ENGINES



READY TO MOVE?



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Signal – START ENGINES!

- To signal “Start Engines”, Raise the right hand with the pointer finger and rotate in a circle.
- This can also be used to inquire “Are you ready?”
- This signal is used by the Primary Ground Guide and responded to by the driver and the secondary ground guide.
- Response is a “Thumbs Up” by everyone involved!



Signal – Are you ready to move?

- To signal “Ready to Move” use the classic “Thumbs up”.
- Used when engine is already running
- This signal is used by the Primary Ground Guide and responded to by the driver and the secondary ground guide.
- Response is a “Thumbs Up” by everyone involved!





Linear Movement

Moving forward and backwards in a straight line.



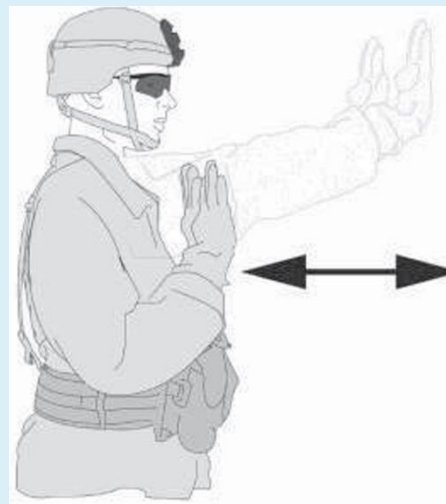
Linear Movement



STOP



FORWARD



REVERSE



CLOSE UP



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The FIRST Signal –STOP!

- Crossed arms over the head mean STOP!
- STOP can be signalled by a ground guide or an observer
- STOP is immediately repeated by EVERYONE around the vehicle move
- STOP can be used as “DONE WITH VEHICLE” when the vehicle is in its final location.
- Yes. This slide is repeated because this signal is so important.



Signal – Move Forward

- To signal “Move Forward:
- With palms facing toward the ground guide and with **both** arms wave the vehicle forward.
 - Think pulling the vehicle towards you.
- Response is the vehicle moving slowly forward.



Signal – Slow Down

- To signal “Slow Down”
- With palms facing away from the ground guide and with **both** arms wave the vehicle downwards
 - Think pushing the vehicle into the ground
- Response is the vehicle moving slowly



Signal – Reverse

- To signal “Reverse”
- With palms facing away from the ground guide and with **both** arms wave the vehicle backwards
 - Think Pushing the vehicle away.
- Response is the vehicle moving slowly backwards



Ground Guiding while Reversing Part 1

- The Front Ground Guide is in charge of the movement but can pass control to the Rear Ground Guide.
- To pass control, the controlling ground guide will:
 - STOP the vehicle
 - POINT at the other Ground Guide
 - The other Ground Guide will respond with THUMBS UP
 - The initiating Ground Guide will acknowledge with THUMBS UP
 - Control is then transferred.



Ground Guiding while Reversing

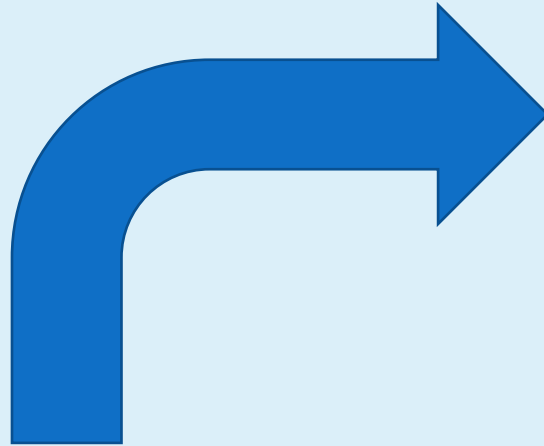
- The Ground Guides will point in the direction that they want the REAR of the vehicle to move.
- If the Rear Ground Guide is in control, the Front Ground Guide shows the driver the MIRROR image as to what the Rear Guide signals.
 - For example, if the rear points to the left, the front points in the same direction (his right).
 - See image



Signal – Close Up

- Close up is used to indicate how far the vehicle is from it stopping point (e.g. Wall or other Vehicle)
- Only used when vehicle is VERY VERY VERY SLOW!!!
- As the vehicle creeps forward (or backward), Hold arms apart with palms facing in.
- As the vehicle moves closer, move the hands closer and closer.
- When the vehicle reaches the stopping point, the hands should touch. The Vehicle must stop.
- IMPORTANT! Do NOT stand between the vehicle and the stopping point!





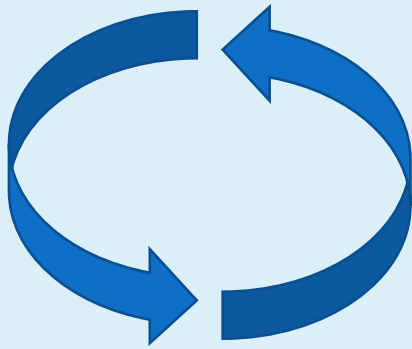
Turning Movements



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Turning Movement is different depending on vehicle.

Tracked Vehicles turn on the spot.

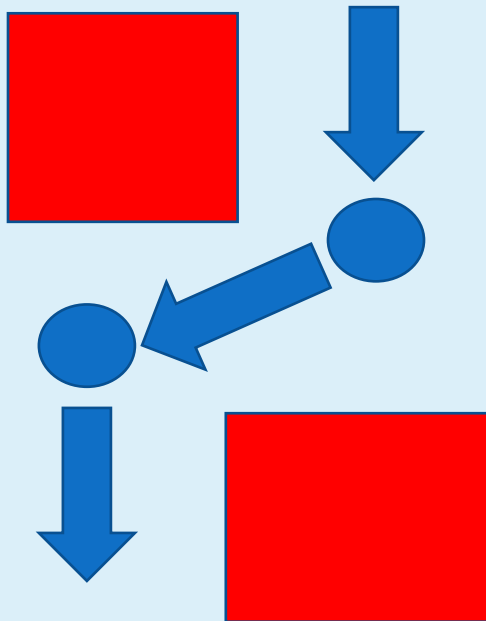


Wheeled Vehicles turn on a corner.

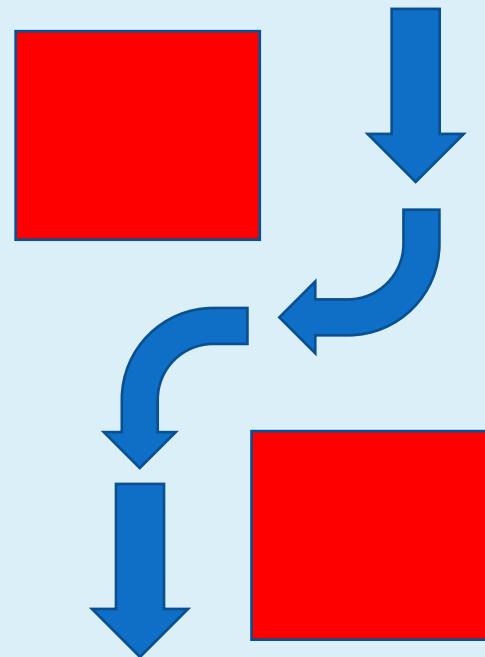


Turning Movement is different depending on vehicle.

Tracked Vehicles move like a Z



Wheeled Vehicles move like an S



Two different Turning Movements

In tight quarters;

(wheeled) stop, turn wheels, move, stop, straighten wheels

(Tracked) Stop, Neutral Steer, stop, move

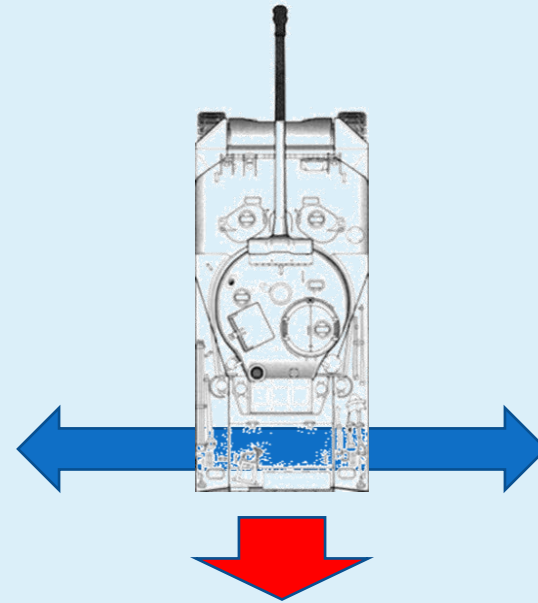
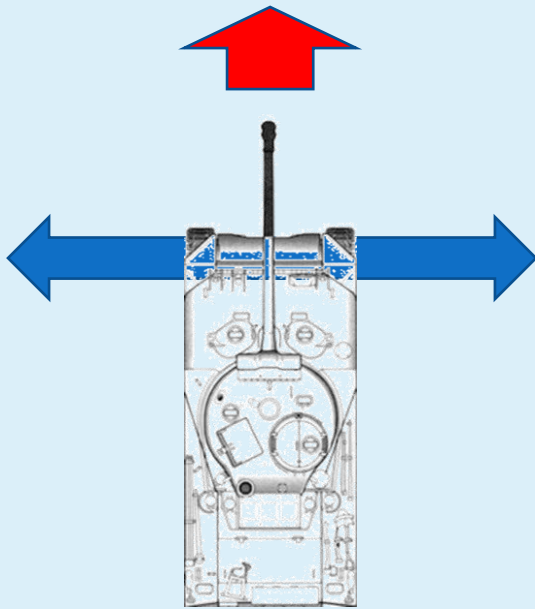
Open terrain;

(Both) Turn on the move.



Direction is important when turning.

Vehicle moving forward, point the way you want the FRONT of the vehicle to move.



Vehicle moving in reverse, point the way you want the rear of the vehicle to move.



Signal – Turn on the move

- For both wheeled and tracked vehicles
- Shake the pointing hand to turn harder
- Stop the turn by dropping the arm or using forward or reverse.
- Can be combined with forward or reverse



Signal – Turn wheels and don't move

- Wheeled vehicles only
- Hold one arm straight up and then point the other arm in the direction for the driver to turn the wheels.
- Shake the pointing hand to turn the wheels more.
- Stop the turn by using the “STOP” Signal
- Then wave the upright arm forward or backward to move the vehicle and keep the wheels turned.
- The wheels are kept turned until the ground guide stops the vehicle and straightens the wheels.



Signal – Neutral Steer Part 1

- Tracked vehicles only
- Bring the vehicle to a stop
- Pull the crossed arms down across the chest
- Rapidly open and close the fist that points in the direction that the neutral steer is to take place.
- This gives the driver a warning that the steer is going to happen and in which direction.



Signal – Neutral Steer Part 2

- Tracked vehicles only
- Hold both arms straight up and then point the arm in the direction for the driver to steer.
- Shake the pointing hand to turn harder
- Stop the turn by using the “STOP” Signal
- Then wave the upright arm forward or backward to move the vehicle



Some other useful signals



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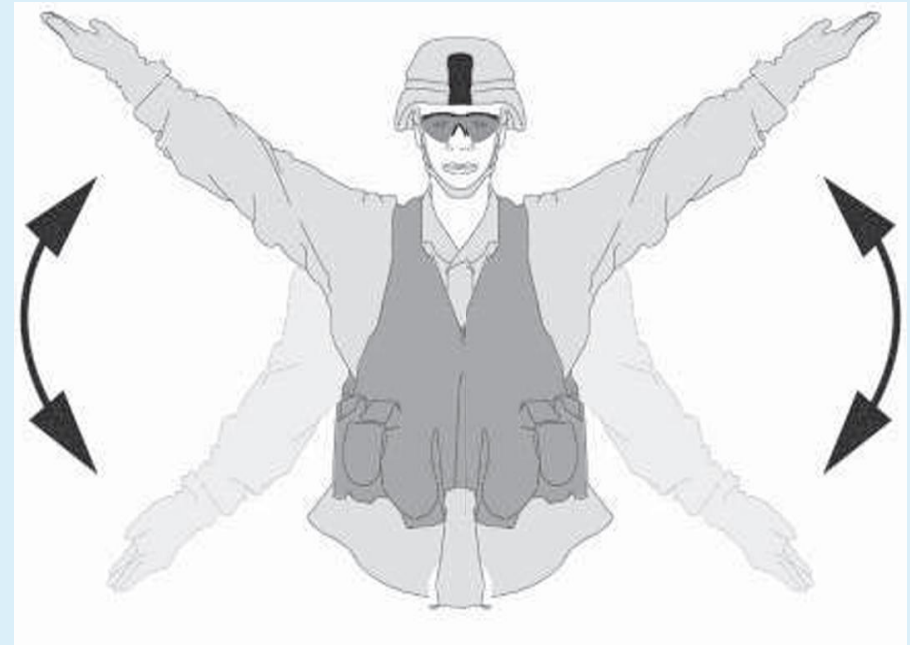
Signal – Follow Me

- This signal is used in open movement with little risk of injury or accident
- The Ground Guide turns their back on the vehicle and signals “Follow Me” by extending the arm vertically and waving the arm forward in a “Follow Me” movement,
- The vehicle follows the ground guide at a walking pace.
- This is maintained until the Ground Guide issues another command.



Mount Up

- This signal is used for passenger assistants, passengers and drivers that passengers are boarding the vehicle
- The Vehicle is stopped
- The Ground Guide gives the signal by extending arms out horizontally and then raising them above the head.
- Think lifting up
- Driver puts vehicle in Park
- Signal is used before lowering ramp, emplacing ladders or steps.



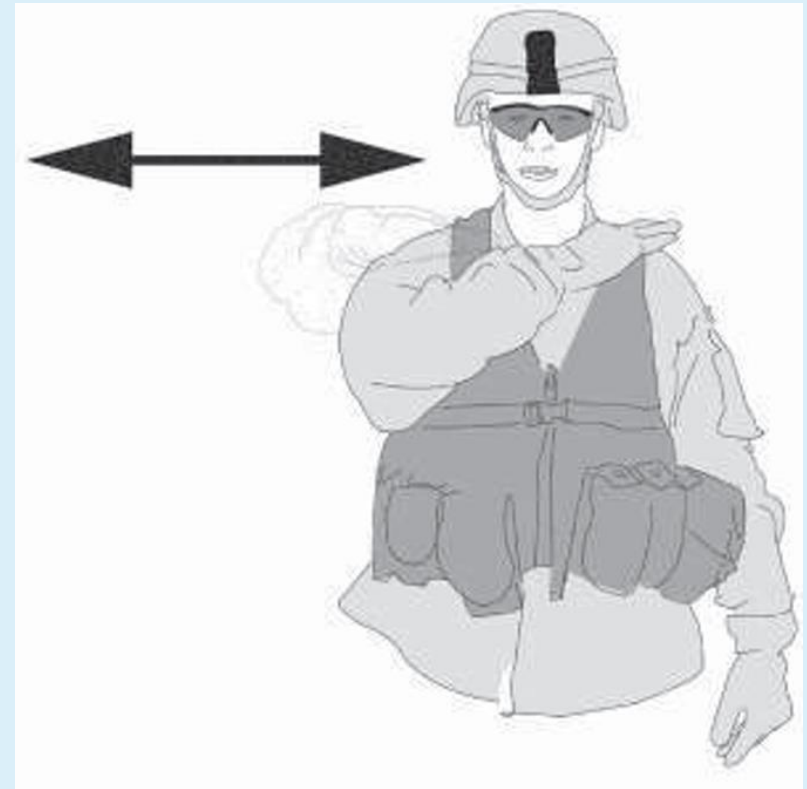
Dismount

- This signal is used for passenger assistants, passengers and drivers that passengers are boarding the vehicle
- The Vehicle is stopped.
- The Ground Guide gives the signal by extending arms above the head and then lowering them to the horizontal.
 - Think pushing down
- Driver puts vehicle in Park
- Signal is used before lowering ramp, emplacing ladders or steps.



Shut down

- This signal is used to tell the driver to shut down the engine
- The Vehicle is stopped.
- The Ground Guide gives the signal by drawing the extended hand across the neck
 - Think throat cutting



Review



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Safety, Safety, and Safety

1. Safety is not just everything, it is the only thing.
2. Communication between Guides and Driver is key to safe movement
 1. Shared Movement Plan
 2. Standardized Signals.
3. No such thing as too slow.
4. If you don't know or are unsure – ASK!
5. Any questions - ASK!





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